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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699,303	10/27/2000	Jing Luo	17815.205469	6250

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04/04/2003

EXAMINER

BOYER, CHARLES I

ART UNIT PAPER NUMBER

1751

DATE MAILED: 04/04/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/699,303

Applicant(s)
Luo et al

Examiner
Charles Boyer

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1751



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 19, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-27, 29-33, 35, 39, and 40 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-27, 29-33, 35, 39, and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

This action is responsive to applicants' request for continued examination received February 19, 2003. Claims 17-27, 29-33, 35, 39, and 40 are currently pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 17-27, 29-33, 35, 39, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Lehmann et al, US 4,959,123.

Lehmann et al teach a method for deinking wastepaper (see abstract). An example of such a process takes newspapers and contacts them with a solution containing a C18 polyglycol ether-20EO wherein water is added to the deinked pulp prior to filtration (col. 6, example 1). The examiner maintains that adding water to the pulp satisfies the washing stage of the present claims and all deinking processes are well known in the art to include at least one washing step. As this reference meets all material limitations of the claims at hand, the reference is anticipatory.

3. Claims 17, 21, 22, 26, 27, 29, and 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato, US 5,460,695.

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Kato teaches a method for deinking wastepaper (see abstract). An example of such a process takes newspapers and contacts them with a solution containing a C16 polyglycol ether-20EO-10PO wherein water is added to the deinked pulp prior to floatation treatment (col. 4, example 1). The examiner maintains that adding water to the pulp satisfies the washing stage of the present claims and all deinking processes are well known in the art to include at least one washing step. As this reference meets all material limitations of the claims at hand, the reference is anticipatory.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 17-27 and 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irinatsu et al, US 6,103,056.

Irinatsu et al teach a deinking process (see abstract). An example of such a process uses newspaper as the starting material, then employs stearyl alcohol with 15 moles of EO and 15 moles of PO as the deinking surfactant (col. 14, example 3). Another example employs stearyl alcohol with 10 moles of EO and 10 moles of PO as the deinking surfactant (col. 15, example 5). Suitable nonionic surfactants of the invention include alkylene oxide adducts of fatty alcohols

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wherein the number of alkoxy groups ranges from 7 to 150 moles with ethoxy and propoxy groups being the most preferred (col. 7, lines 1-4). Note that fatty acids are also taught as suitable deinking compounds by Irinatsu et al (col. 16, example 6). Further note that the deinking methods of Irinatsu et al employ a washing step (col. 1, lines 27-34). Irinatsu et al do not specifically teach a nonionic surfactant as a deinking agent with the precise numeric range of alkylene oxide adducts presently claimed, however, such surfactants are encompassed and overlapped by the teachings of Irinatsu et al as suitable surfactants for use in their invention.

Applicants have traversed this rejection on the grounds that Irinatsu et al teach a floatation process and the present claims are drawn to a washing process. The examiner acknowledges that floatation and washing processes have a separate status in the art, however, contrary to applicants' assertion, a washing process is not claimed. All that is required in the claims is a single washing stage. It is well known that even floatation processes contain washing stages as evidenced by Irinatsu et al. Accordingly, applicants' traversal on this basis is moot and the rejection is maintained.

6. Claims 17-27, and 29-33, 35, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez et al, US 5,665,204.

Rodriguez et al teach a deinking process for printed wastepaper (see abstract). An example of such a process is a deinking process for shredded newspaper employing an ethoxylated/propoxylated nonionic surfactant (col. 4, example 1). Suitable nonionic surfactants

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of the invention include alkylene oxide adducts of fatty alcohols wherein the alcohol contains from 3 to 35 carbon atoms, the number of ethoxy groups ranges from 10 to 35 moles and the number of propoxy groups ranges from 5 to 20 moles (col. 2, lines 36-40). Rodriguez et al do not specifically teach a nonionic surfactant as a deinking agent with the precise range of alkylene oxide adducts as presently claimed, however, such surfactants are encompassed and overlapped by the teachings of Rodriguez et al as suitable surfactants for use in their invention.

Applicants have traversed this rejection on the grounds that the nonionic surfactants taught by the reference do not overlap those of the present claims. The examiner disagrees and maintains the surfactants of Rodriguez et al are alkoxylated alcohols, just as those presently claimed. Applicants also note the surfactants disclosed by Rodriguez et al are considerably broader than those claimed by applicants. This point is acknowledged, however, the preferred ranges of Rodriguez et al are squarely within the ranges of applicants (see again col. 2, lines 36-40). Accordingly, as the preferred ranges of the prior art closely overlaps applicants' ranges, it would be obvious to prepare a deinking surfactant having these ranges based on the teachings of Rodriguez et al.

7. Claims 17-27, 29-33, 35, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al, US 4,666,558.

Wood et al teach a method for deinking newspaper (see abstract). An example of such a process takes newspapers and contacts them with a solution containing a C9-16 polyglycol ether-

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6.5 to 20EO wherein the process contains a washing step (col. 10, claim 1 and col. 7, lines 10-17). Wood et al do not specifically teach a nonionic surfactant as a deinking agent with the precise range of alkylene oxide adducts as presently claimed, however, such surfactants are encompassed and overlapped by the teachings of Wood et al as suitable surfactants for use in their invention.

8. Claims 17-27, 29-33, 35, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freis et al, US 4,518,459.

Freis et al teach a washing method for deinking cellulosic fibers (see abstract). An example of such a process takes fibers such as newspapers (col. 1, line 35) and contacts them with a solution containing a C10-18 polyglycol ether-6 to 15EO (col. 7, lines 50-55). Freis et al do not specifically teach a nonionic surfactant as a deinking agent with the precise range of alkylene oxide adducts as presently claimed, however, such surfactants are encompassed and overlapped by the teachings of Freis et al as suitable surfactants for use in their invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Boyer whose telephone number is (703) 308-2524. The examiner can normally be reached on Monday-Friday from 9:30 AM - 6:00 PM.

If reasonable attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta, can be reached on (703) 308-4708. The fax phone number for this

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Group is (703) 872-9310 for non-after-final amendments and (703) 872-9311 for after-final amendments.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.


Charles Boyer

April 2, 2003
